

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	2	"20080164137"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2010/04/12 15:09
S2	2	"6627069".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2010/04/12 15:10
S3	2	"4634519".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2010/04/12 15:11
S4	2	"5182013".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2010/04/12 15:11
S5	6	((BARRY) near2 (MESSER)). INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/04/12 15:12
S6	1	((BART) near2 (TARLETON)). INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/04/12 15:12
S7	10	((MICHAEL) near2 (BEATON)). INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2010/04/12 15:13
S8	10	((BARRY) near2 (MESSER)). INV.	EPO; JPO; DERWENT	OR	OFF	2010/04/12 15:13
S9	2	((BART) near2 (TARLETON)). INV.	EPO; JPO; DERWENT	OR	OFF	2010/04/12 15:13
S10	6	((MICHAEL) near2 (BEATON)). INV.	EPO; JPO; DERWENT	OR	OFF	2010/04/12 15:13
S11	29	S5 or S6 or S7 or S8 or S9 or S10	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2010/04/12 15:13
S12	12	US-4634519-\$.DID. OR US- 2921023-\$.DID. OR US- 2112313-\$.DID. OR US- 6627069-\$.DID. OR US- 5182013-\$.DID. OR US- 1331018-\$.DID.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2010/04/12 15:23
S13	55	(naphthenic adj acid) and (molecular adj weight) and solubility and pka and (boiling adj point) and tan	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/12 16:10
S14	768	alpha with naphthenic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/12 16:10

S15	313	beta with naphthenic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/12 16:10
S16	90	S14 and S15	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/12 16:10
S17	1683	208/14,15,19.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2010/04/12 16:23
S18	324	S17 and naphthenic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2010/04/12 16:23
S21	555	208/263.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 09:34
S22	207	S21 and naphthenic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 09:34
S27	55	(naphthenic adj acid) and (molecular adj weight) and solubility and pka and (boiling adj point) and tan	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 13:14
S28	55	S27 and alpha	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 13:14
S29	1	S27 and (alpha with naphthenic)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 13:15
S30	619	208/47.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 13:24
S31	76	S30 and naphthenic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 13:24
S33	9	"2944968"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 13:32
S34	543	S30 not S31	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 14:24

S35	43	S34 and ((carbox\$5 or naphth\$5) with acid)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 14:25
S36	500	S34 not S35	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 14:40
S37	1684	208/14,15,19.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 14:49
S38	1350	S37 not naphthenic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 14:49
S39	134	S38 and ((carbox\$5 or naphth\$5) with acid)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 14:49
S40	555	208/263.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 14:56
S41	348	S40 not naphthenic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 14:57
S42	46	S41 and ((carbox\$5 or naphth\$5) with acid)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 14:57
S43	295	562/511.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:01
S44	192	S43 and naphthenic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:02
S45	103	S43 not S44	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:02
S46	480	562/400.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:31
S47	15	S46 and naphthenic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:31

S48	465	S46 not S47	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:32
S49	687	562/405.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:43
S50	5	S49 and naphthenic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:45
S51	682	S49 not S50	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:46
S52	425	S51 and ((carbox\$5 or naphth\$5) with acid)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:47
S53	257	S51 not S52	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:49
S54	1776	562/503,504.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:57
S55	8	S54 and naphthenic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:57
S56	1768	S54 not S55	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:58
S57	937	S56 and ((carbox\$5 or naphth\$5) with acid)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 15:59
S58	831	S56 not S57	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 16:01
S59	1825	(naphthenic adj acid) same (molecular adj weight)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 16:14
S60	917	(naphthenic adj acid) same (solubility)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 16:14

S61	674	(naphthenic adj acid) same (ph)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 16:16
S62	331	S59 and S60	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 16:16
S63	50	S62 and S61	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 16:16
S64	2829	208/14,15,19,263,47.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 16:26
S65	598	S64 and naphthenic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 16:26
S66	125	S65 and (naphthenic same (molecular adj weight))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 16:26
S67	329	S65 and (naphthenic same (boiling point))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 16:26
S68	84	S66 and S67	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 16:55
S70	38	S68 and (naphthenic adj acid)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/13 17:05
S71	2829	208/14,15,19,263,47.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/14 08:38
S72	598	S71 and naphthenic	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/14 08:38
S73	125	S72 and (naphthenic same (molecular adj weight))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/14 08:38
S74	329	S72 and (naphthenic same (boiling point))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/14 08:38

S75	84	S73 and S74	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/14 08:38
S76	41	S73 not S75	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/14 08:41
S77	2651	naphthenic same (boiling adj point)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/14 09:33
S78	78	S77 and S71	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/14 09:33
S79	61	S78 not S73	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/14 09:33
S80	253	(napthenic adj acid) and corrosi \$7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/16 14:57
S81	1	S80 and hydrothermal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/16 14:59
S82	5	S80 and hydrotreat\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/16 14:59
S83	2	S80 and hydroprocess\$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/16 14:59
S84	39	S80 and (hot with water)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	ON	2010/04/16 15:00
S85	21	(naphthenic adj acid adj corrosion).ti.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2010/09/10 10:44
S86	305	piehl.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2010/09/10 10:44
S87	0	S85 and S86	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2010/09/10 10:45

S88	0	S86 and (naphthenic adj acid)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT	OR	OFF	2010/09/10 10:45
S89	404	208/47.cds.	US-PGPUB; USPAT	OR	OFF	2011/01/10 10:16
S90	166978	(naphthenic) or tan	US-PGPUB; USPAT	OR	OFF	2011/01/10 10:18
S91	52	S89 and S90	US-PGPUB; USPAT	OR	OFF	2011/01/10 10:18
S92	418	((naphthenic) or tan) with (corrosivity or corrosion) and (crude or hydrocarbon or oil)	US-PGPUB; USPAT	OR	OFF	2011/01/10 10:30
S93	6239	((naphthenic) or tan) with (fractions or streams or acids)	US-PGPUB; USPAT	OR	OFF	2011/01/10 10:30
S94	264	S92 and S93	US-PGPUB; USPAT	OR	OFF	2011/01/10 10:30
S95	230	S94 not S89	US-PGPUB; USPAT	OR	OFF	2011/01/10 10:30
S96	23	((naphthenic) or tan) with (corrosivity or corrosion) and (crude or hydrocarbon or oil)). ab.	US-PGPUB; USPAT	OR	OFF	2011/01/10 10:31
S97	9214	naphthenic adj acid	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/20 09:52
S98	34943	((molecular adj weight) and (boiling adj point) and solubility)	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/20 09:53
S99	49	(naphthenic adj acid) same ((molecular adj weight) and (boiling adj point) and solubility)	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/20 09:53
S100	28011	((acid adj number) or tan) same (solubility or ph or mw or (molecular adj weight) or (boiling adj point) or (boiling adj range))	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/20 10:23
S101	909	S97 and S100	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/20 10:23
S102	423690	corrosion or corrosive or corrosivity	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/20 10:24
S103	500	S101 and S102	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/20 10:24

## EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp

L1	0	((naphthenic adj acid) and (tan or (acid adj number)) and (crude or hydrocarbon or refine\$4) and (corrosive or corrosivity) and (molecular adj weight) and (boiling adj point) and solubility and (blend\$4 or combin\$6)).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2011/10/06 13:26
L2	0	((naphthenic adj acid) and (tan or (acid adj number)) and (crude or hydrocarbon or refine\$4) and (corrosive or corrosivity) and (molecular adj weight) and solubility and (blend\$4 or combin\$6)).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2011/10/06 13:29
L3	1	((naphthenic adj acid) and (tan or (acid adj number)) and (crude or hydrocarbon or refine\$4) and (corrosive or corrosivity) and (molecular adj weight) and (blend\$4 or combin\$6)).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2011/10/06 13:29
S104	1997	208/47,263,14,15,19.cds.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/06/27 13:47
S105	36	((naphthenic adj acid) and (tan or (acid adj number)) and (crude or hydrocarbon or refine\$4)).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2011/06/27 13:55
S106	37	((naphthenic adj acid) and (tan or (acid adj number)) and (crude or hydrocarbon or refine\$4)).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2011/09/30 10:35
S107	2024	208/47,263,14,15,19.cds.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/30 10:36
S108	37	((naphthenic adj acid) and (tan or (acid adj number)) and (crude or hydrocarbon or refine\$4)).clm.	US-PGPUB; USPAT; UPAD	OR	ON	2011/09/30 10:36
S109	79	S107 and (tan or (acid adj number)) and (corrosiv\$5)	US-PGPUB; USPAT; UPAD	OR	OFF	2011/09/30 10:37

10/6/2011 1:30:17 PM

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